Natural Community Surveys of State Forest Lands - 2021



Prepared by: Joshua G. Cohen

Michigan Natural Features Inventory P.O. Box 13036 Lansing, MI 48901-3036

For: Michigan Department of Natural Resources Forest Resources Division

September 30, 2021

Report Number 2021-09







Lake Sixteen (Dead Man's Marsh) intermittent wetland, Atlanta Forest Management Unit. Photo by Joshua G. Cohen.

Suggested Citation:

Cohen, J.G. 2021. Natural Community Surveys of State Forest Lands 2021. Michigan Natural Features Inventory. Report Number 2021-09, Lansing, MI. 56 pp.

Cover Photo: Blind Sucker Creek dry northern forest, Newberry Forest Management Unit. Photo by Joshua G. Cohen

Copyright 2021 Michigan State University Board of Trustees. Michigan State University Extension programs and materials are open to all without regard to race, color, natural origin, gender, religion, age, disability, political beliefs, sexual orientation, marital status, or family status.

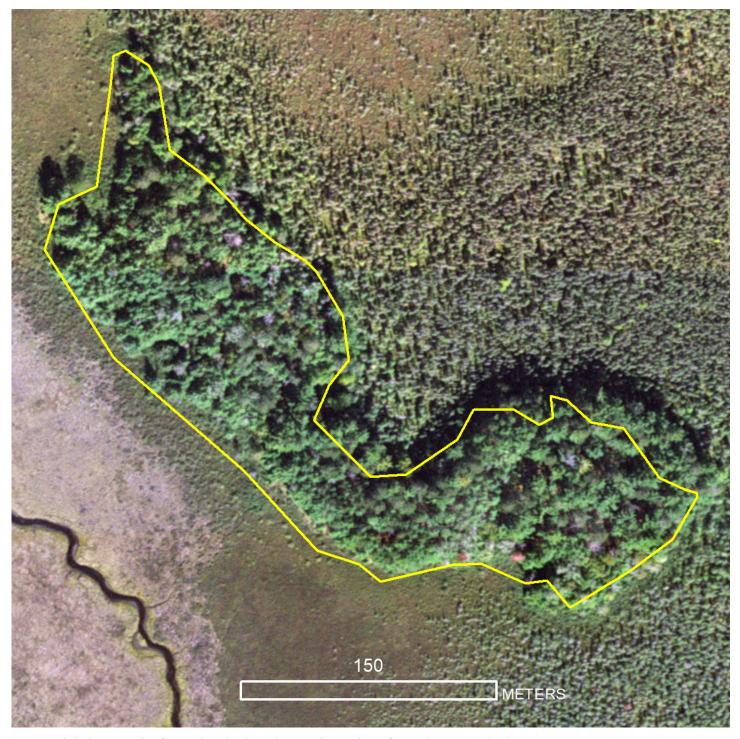
Funding for this project was provided by the Michigan Department of Natural Resources (DNR) Forest Resources Division (FRD). We express our sincere gratitude to the numerous DNR staff that helped administer and guide this project including Keith Kintigh, David Price, and Jeffrey Stampfly. In addition, Jason Caron assisted with field surveys. For their support and assistance throughout this project, we thank our MNFI colleagues, especially Helen Enander, David Cuthrell, Logan Rowe, Rebecca Rogers, Kraig Korroch, Ashley Adkins, Nancy Toben, Deb Richardson, Sarah Carter, and Brian Klatt.

Atlanta Compartment 68

Surveys targeted four known element occurrences within the compartment: dry-mesic northern forest (EO ID 18843), northern wet meadow (EO ID 18846), poor conifer swamp (EO ID 18847), and rich tamarack swamp (EO ID 18848). The element occurrence ranks for the Tomahawk Pines dry-mesic northern forest (EO ID 18843, BC rank), Rainy River Flooding northern wet meadow (EO ID 18846, B rank), Tomahawk poor conifer swamp (EO ID 9208, B rank), and Tomahawk rich tamarack swamp (EO ID 18848, B rank) were confirmed. Following the 2021 surveys the Rainy River Flooding northern wet meadow (EO ID 18846) was remapped with current imagery and a significant portion of the former polygon was incorporated into the Tomahawk muskeg (EO ID 18844).



Tomahawk Pines dry-mesic northern forest (EO ID 18843). Photo by Joshua G. Cohen.



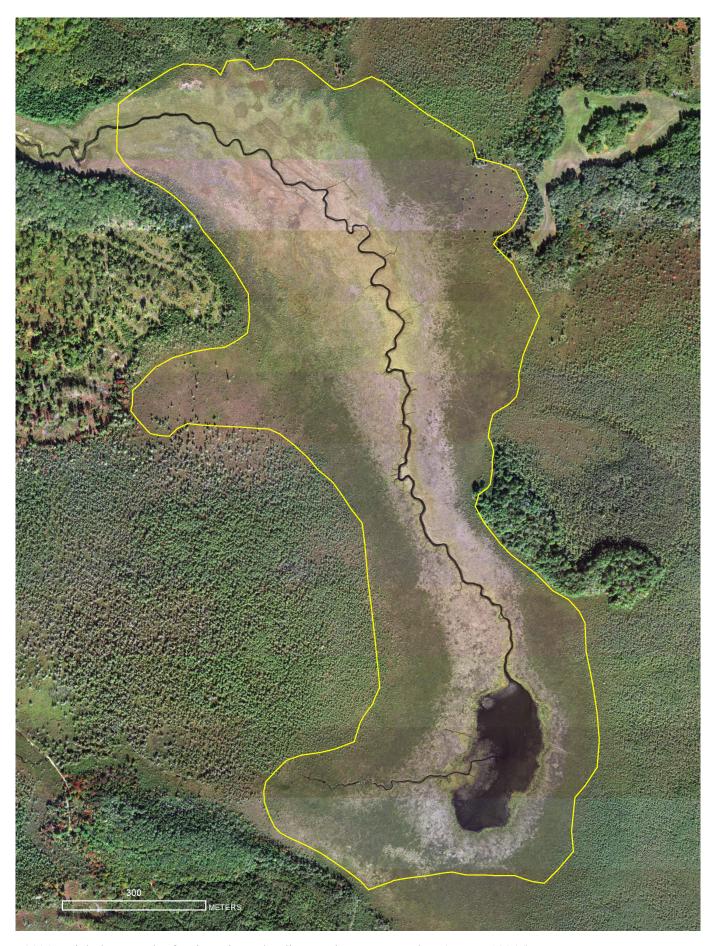
2020 aerial photograph of Tomahawk Pines dry-mesic northern forest (EO ID 18843).



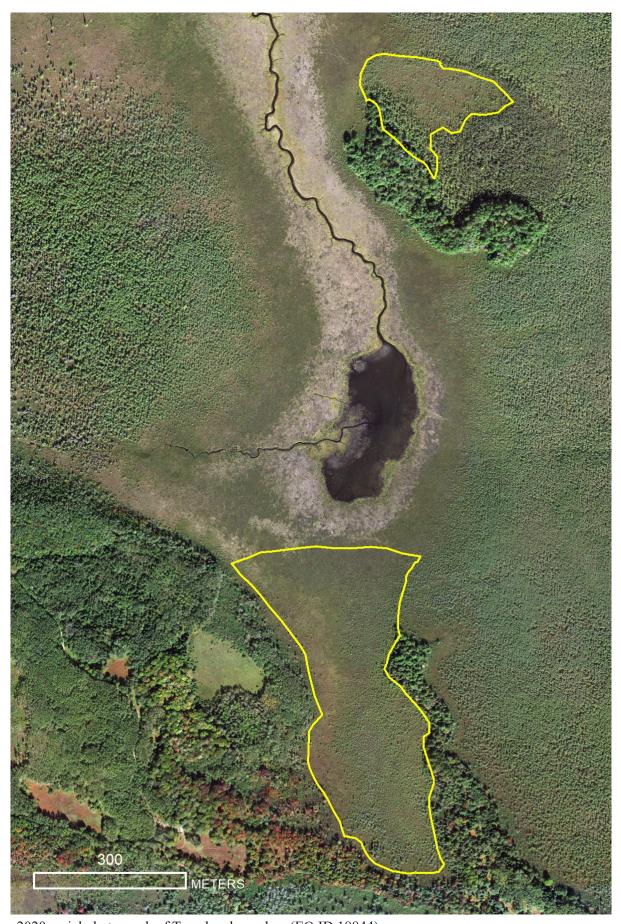
Rainy River Flooding northern wet meadow (EO ID 18846, above) and Tomahawk muskeg (EO ID 18844, below). Photos by Joshua G. Cohen.



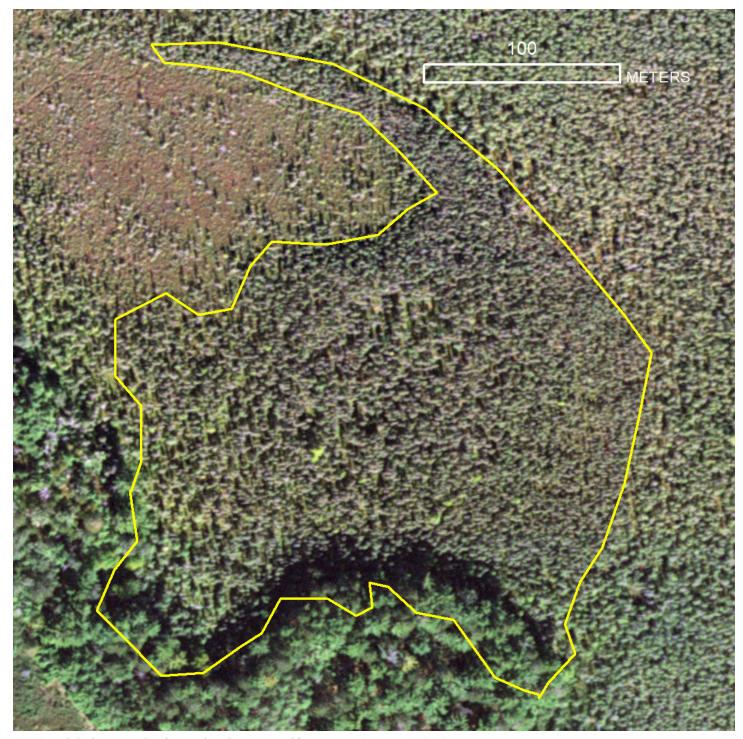
Natural Community Surveys of State Forest Lands 2021 Page-3



2020 aerial photograph of Rainy River Flooding northern wet meadow (EO ID 18846).



2020 aerial photograph of Tomahawk muskeg $\overline{\mbox{(EO ID 18844)}}.$



2020 aerial photograph of Tomahawk poor conifer swamp (EO ID 18847).



Tomahawk poor conifer swamp (EO ID 18847). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page-7



Tomahawk rich tamarack swamp (EO ID 18848). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page - 8



2020 aerial photograph of Tomahawk rich tamarack swamp (EO ID 18848).

Atlanta Compartment 156

Survey targeted Lake Sixteen (Dead Man's Marsh) intermittent wetland (EO ID 11227) in Compartment 156. Following the 2021 survey, the intermittent wetland was remapped with current imagery and the element occurrence rank of B was confirmed.



Lake Sixteen (Dead Man's Marsh) intermittent wetland (EO ID 11227). Photos by Joshua G. Cohen.







2020 aerial photograph of Lake Sixteen (Dead Man's Marsh) intermittent wetland (EO ID 11227).

Baraga Compartment 11

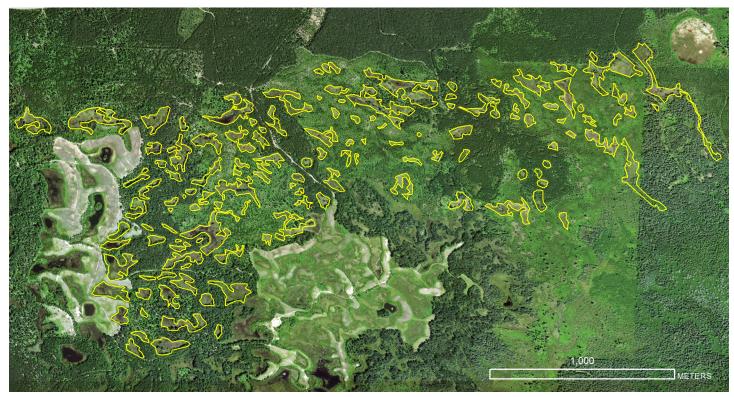
Survey targeted Baraga Plains intermittent wetland (EO ID 17616) in Compartment 11. Following the 2021 survey, the element occurrence rank of AB was confirmed.



Baraga Plains intermittent wetland (EO ID 17616). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page - 12



2020 aerial photograph of Baraga Plain intermittent wetland (EO ID 17616).



Baraga Plains intermittent wetland (EO ID 17616). Photo by Joshua G. Cohen.

Baraga Compartment 57

Survey targeted Sturgeon River Great Lakes marsh (EO ID 8300) in Compartment 57. Following the 2021 survey, the element occurrence rank of B was confirmed.



Sturgeon River Great Lakes marsh (EO ID 8300). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page - 14



2020 aerial photograph of Sturgeon River Great Lakes marsh (EO ID 8300).

Survey targeted high-quality forested wetlands and adjacent uplands in the Jordan River Valley. Documented two high-quality natural communities: Marsh Ponds Swamp hardwood-conifer swamp (EO ID 24335, C rank) and Marsh Ponds Hemlocks mesic northern forest (EO ID 24334, C rank). Both the swamp and forest are notable for the prevalence of hemlock regeneration in multiple age classes.



2020 aerial photographs of Marsh Ponds Swamp hardwood-conifer swamp (EO ID 24335, left) and Marsh Ponds Hemlocks mesic northern forest (EO ID 24334, right).



Marsh Ponds Swamp hardwood-conifer swamp (EO ID 24335). Photo by Joshua G. Cohen.



Marsh Ponds Forest mesic northern forest (EO ID 24334) with hemlock regeneration pictured below. Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page-17

Survey targeted Pinney Bridge Swamp rich conifer swamp (EO ID 18802) in Compartment 55. Following the 2021 survey, the rich conifer swamp was remapped with current imagery and the element occurrence rank of C was confirmed.



Pinney Bridge Swamp rich conifer swamp (EO ID 18802). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page - 18



2020 aerial photograph of Pinney Bridge Swamp rich conifer swamp (EO ID 18802).



Pinney Bridge Swamp rich conifer swamp (EO ID 18802). Photo by Joshua G. Cohen.

Survey targeted two known element occurrences within Compartment 106: Wycamp Mesic Forest mesic northern forest (EO ID 18862, BC rank) and Sturgeon Bay Point open dunes (EO ID 2862, CD rank). Following the 2021 survey, the mesic northern forest and open dunes were remapped with current imagery and the element occurrence ranks were confirmed.



Wycamp Mesic Forest mesic northern forest (EO ID 18862). Photo by Joshua G. Cohen.



2020 aerial photograph of Wycamp Mesic Forest mesic northern forest (EO ID 18862).



2020 aerial photograph of Sturgeon Bay Point open dunes (EO ID 2862).

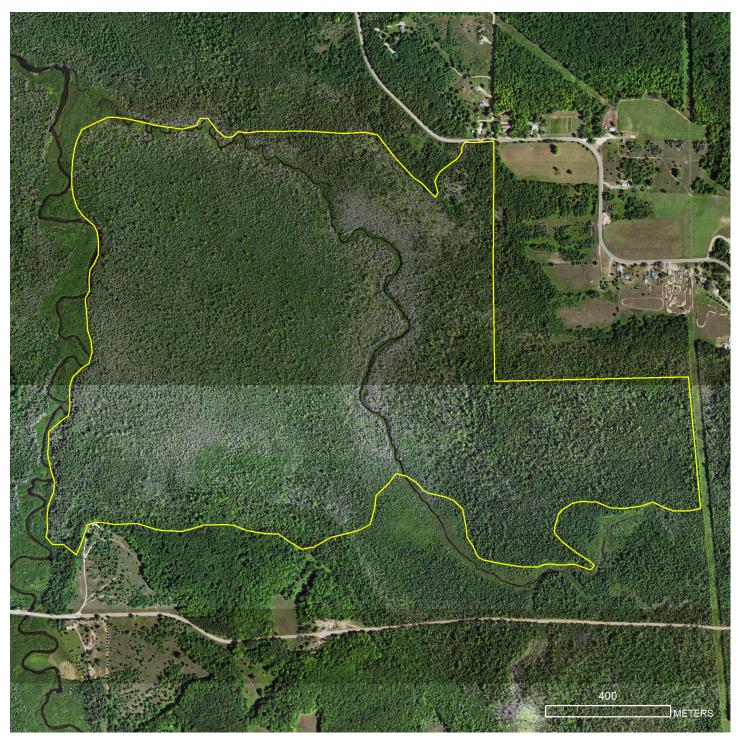


Sturgeon Bay Point open dunes (EO ID 2862). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page - 22

Survey targeted Bear River Swamp rich conifer swamp (EO ID 15953) in Compartment 113. Following the 2021 survey, the rich conifer swamp was remapped with current imagery and the element occurrence rank of B was confirmed. Areas of the Bear River Swamp with dense windthrow support significant pockets of advanced cedar regeneration, which rarely occurs in the Lower Peninsula.



2020 aerial photograph of Bear River Swamp rich conifer swamp (EO ID 15953).



Bear River Swamp rich conifer swamp (EO ID 15953). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page - 24

Grayling Compartment 29

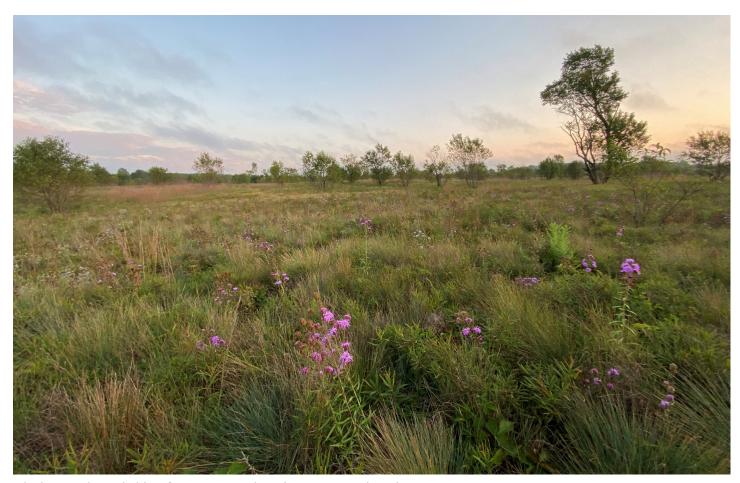
Conducted black lighting surveys in Compartment 29 Frost Pocket Pine Barrens and documented new element occurrence for blazing star borer (*Papaipema beeriana*, state special concern) (EO ID 24343, BC rank).



2020 aerial photograph of Frost Pocket Pine Barrens blazing star borer element occurrence.



Blazing star borer collected from Frost Pocket Pine Barrens. Photo by Logan Rowe.



Blazing star borer habitat from Frost Pocket Pine Barrens. Photo by Logan Rowe.

Grayling Compartment 278

Survey targeted Crawford Red Pines dry northern forest (EO ID 10262) in Compartment 278. Following the 2020 survey, the element occurrence rank was downgraded from BC to C due to prolonged fire suppression.



2020 aerial photograph of Crawford Red Pines dry northern forest (EO ID 10262).



Crawford Red Pines dry northern forest (EO ID 10262). Photo by Joshua G. Cohen.



Crawford Red Pines dry northern forest (EO ID 10262). Fire suppression has led to the local abundance of red maple in the understory and subcanopy (below). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page-27

Grayling Compartment 293

Surveys targeted five known element occurrences within the compartment: bog (EO ID 19491), dry-mesic northern forest (EO ID 19489 and EO ID 19490), pine barrens (EO ID 19502), and rich conifer swamp (EO ID 19492). The element occurrence ranks for the Mason Tract bog (EO ID 19491, C rank), Mason Tract dry-mesic northern forest (EO ID 19489, C rank), Chase Bridge Pines dry-mesic northern forest (EO ID 19490, C rank), Mason Tract pine barrens (EO ID 19502, CD rank), and Mason Tract rich conifer swamp (EO ID 19492, C rank) were confirmed. Following the 2021 surveys the Mason Tract pine barrens (EO ID 19502) was remapped with current imagery.



Mason Tract bog (EO ID 19491). Photo by Joshua G. Cohen.



2020 aerial photograph of Mason Tract bog (EO ID 19491).



2020 aerial photograph of Mason Tract dry-mesic northern forest (EO ID 19489).



Mason Tract dry-mesic northern forest (EO ID 19489). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page - 30



2020 aerial photograph of Chase Bridge Pines dry-mesic northern forest (EO ID 19490).



Chase Bridge Pines dry-mesic northern forest (EO ID 19490). Photo by Joshua G. Cohen.



2020 aerial photograph of Mason Tract pine barrens (EO ID 19502).



2020 aerial photograph of Mason Tract rich conifer swamp (EO ID 19492).



Mason Tract pine barrens (EO ID 19502, above) and Mason Tract rich conifer swamp (EO ID 19492, below). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page-33

Gwinn Compartment 202

Survey targeted Big Bay South Outcrops granite bedrock glade (EO ID 4782, AB rank) in Compartment 202. Following the 2021 survey, the element occurrence rank of AB was confirmed.



2020 aerial photograph of Big Bay South Outcrops granite bedrock glade (EO ID 4782).



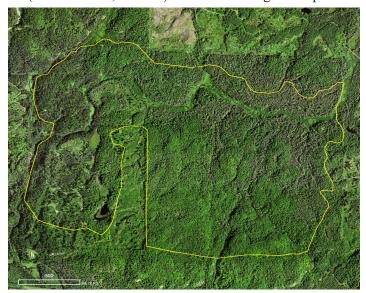
Big Bay South Outcrops granite bedrock glade (EO ID 4782). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page-35

Gwinn Compartment 212

Surveys targeted four known element occurrences within the compartment: Pesheke Highlands dry-mesic northern forest (EO ID 17348, B rank), Pesheke Highlands granite bedrock glade (EO ID 17352, AB rank), Pesheke Highlands granite cliff (EO ID 17350, AB rank), and Pesheke Highlands northern shrub thicket (EO ID 17351, AB rank). Following the 2021 surveys, the element occurrence ranks for these four element occurrences were confirmed and current imagery was used to remap the dry-mesic northern forest, granite bedrock glade, and granite cliff. In addition, during the course of these surveys, two new natural community element occurrences were documented: Pesheke Highlands mesic northern forest (EO ID 24347, C Rank) and Pesheke Highlands poor conifer swamp (EO ID 24346, C Rank).





2020 aerial photographs of Pesheke Highlands dry-mesic northern forest (EO ID 17348, left) and Pesheke Highlands granite cliff (EO ID 17350, right).



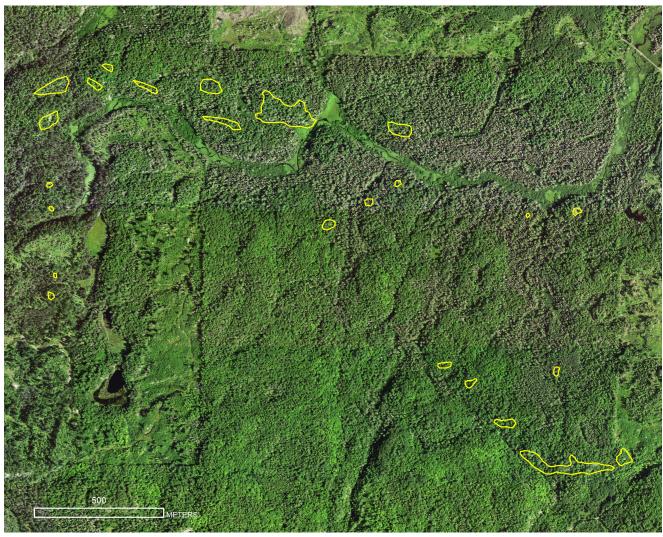
Pesheke Highlands dry-mesic northern forest (EO ID 17348). Photo by Joshua G. Cohen.



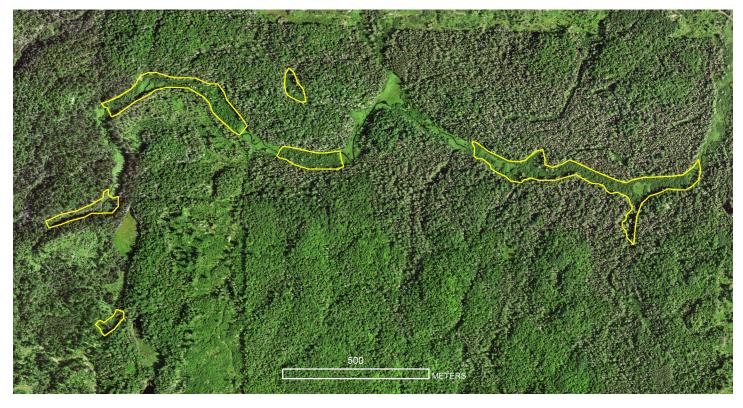
Pesheke Highlands granite cliff (EO ID 17350). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page-37



2020 aerial photographs of Pesheke Highlands granite bedrock glade (EO ID 17352, above) and Pesheke Highlands northern shrub thicket (EO ID 17351, below).



Natural Community Surveys of State Forest Lands 2021 Page - 38



Pesheke Highlands granite bedrock glade (EO ID 17352). Photos by Joshua G. Cohen.



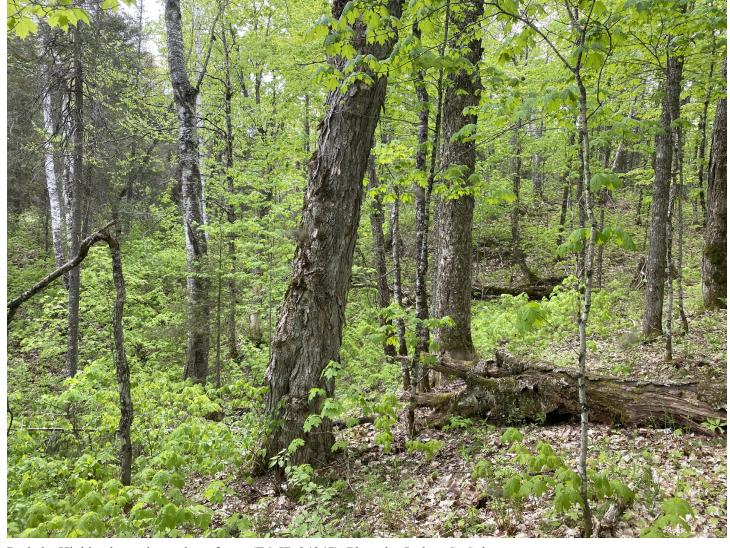
Natural Community Surveys of State Forest Lands 2021 Page-39



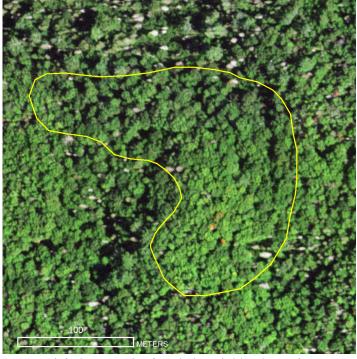
Pesheke Highlands northern shrub thicket (EO ID 17351). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page - 40



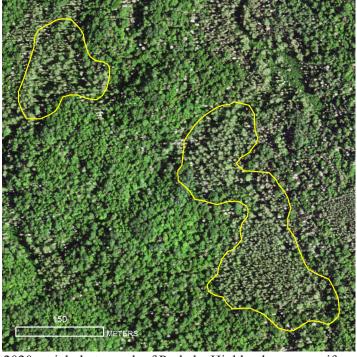
Pesheke Highlands mesic northern forest (EO ID 24347). Photo by Joshua G. Cohen.



2020 aerial photograph of Pesheke Highlands mesic northern forest (EO ID 24347).



Pesheke Highlands poor conifer swamp (EO ID 24346). Photo by Joshua G. Cohen.



2020 aerial photograph of Pesheke Highlands poor conifer swamp (EO ID 24346).

Gwinn Compartment 262

Survey targeted Kate's Lake rich conifer swamp (EO ID 9448) in Compartment 262. Following the 2021 survey, the rich conifer swamp was remapped with current imagery and the element occurrence rank of BC was confirmed.



2020 aerial photograph of Kate's Lake rich conifer swamp (EO ID 9448).



Kate's Lake rich conifer swamp (EO ID 9448). Photo by Joshua G. Cohen.



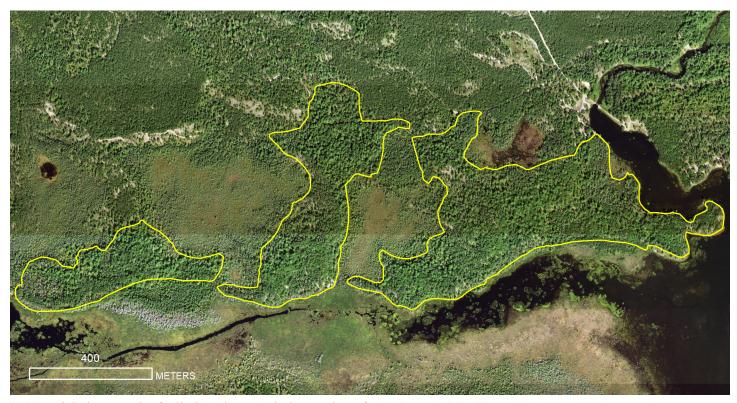
Kate's Lake rich conifer swamp (EO ID 9448). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page - 44

Newberry Compartment 4

Surveys targeted three known element occurrences within the compartment: Blind Sucker Creek dry northern forest (EO ID 14558, B rank), Lake Superior Campground dry northern forest (EO ID 18810, B rank), and Lake Superior Campground sand and gravel beach (EO ID 18811, AB rank). Following the 2021 surveys, current imagery was used to remap the element occurrences and their element occurrence ranks were confirmed.



2020 aerial photograph of Blind Sucker Creek dry northern forest (EO ID 14558).



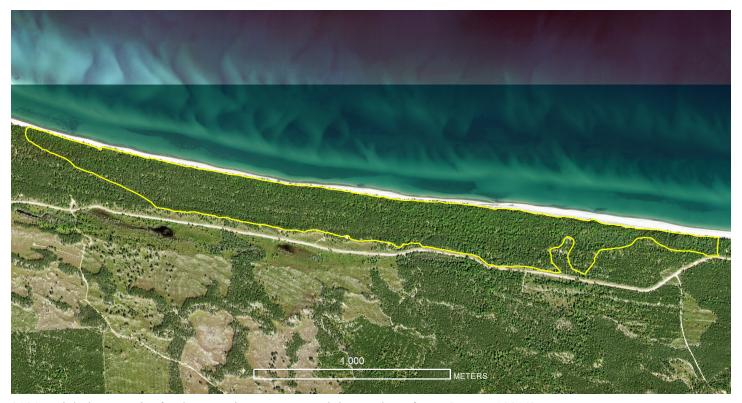
Blind Sucker Creek dry northern forest (EO ID 14558). Photo by Joshua G. Cohen.



Blind Sucker Creek dry northern forest (EO ID 14558). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page - 46



2020 aerial photograph of Lake Superior Campground dry northern forest (EO ID 18810).



Lake Superior Campground dry northern forest (EO ID 18810). Photo by Joshua G. Cohen.



Lake Superior Campground dry northern forest (EO ID 18810). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page - 48



2020 aerial photograph of Lake Superior Campground sand and gravel beach (EO ID 18811).



Lake Superior Campground sand and gravel beach (EO ID 18811). Photo by Joshua G. Cohen.



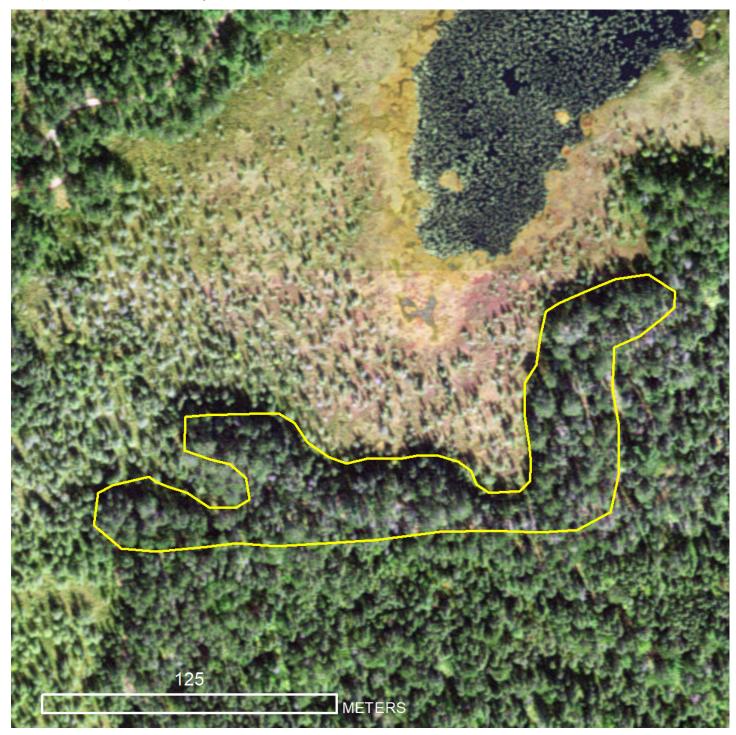
Lake Superior Campground sand and gravel beach (EO ID 18811). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page - 50

Newberry Compartment 65

Conducted surveys for rare plants within Copartment 65 and Stands 8 and 14. No rare plant species were documented. During the course of the surveys, a new dry northern forest element occurrence was documented in Stand 8 (Wolf Scat Pines, EO ID 24338, EO Rank C).



2020 aerial photograph of Wolf Scat Pines dry northern forest (EO ID 24338).



Wolf Scat Pines dry northern forest (EO ID 24338). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page - 52

Pigeon River Country Compartment 7

Survey targeted high-quality mesic northern forest in Compartment 7, Stand 64. Documented additional acreage of high-quality mesic northern forest that was incorporated into the existing Grindstone Creek mesic northern forest (EO ID 19929, EO Rank D). Following 2021 surveys, this mesic northern forest was remapped and the acreage increased from 165 acres to 373 acres. The element occurrence rank of D was confirmed.



2020 aerial photograph of Grindstone Creek mesic northern forest (EO ID 19929).



Grindstone Creek mesic northern forest (EO ID 19929). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page - 54

Sault Sainte Marie Compartment 119

Survey targeted high-quality non-forested wetlands in Compartment 119. Documented a high-quality poor fen: Cut River Fen (EO ID 24345, C rank).



2020 aerial photograph of Cut River Fen poor fen (EO ID 24345).



Cut River Fen poor fen (EO ID 24345). Photo by Joshua G. Cohen.



Cut River Fen poor fen (EO ID 24345). Photos by Joshua G. Cohen.



Natural Community Surveys of State Forest Lands 2021 Page - 56